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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/659,231	09/10/2003	Tsukasa Hashino	450100-04755	3477

7590 07/18/2007

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EXAMINER	
RAO, ANAND SHASHIKANT	
ART UNIT	PAPER NUMBER
2621	
MAIL DATE	DELIVERY MODE
07/18/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/659,231	HASHINO ET AL.	
	Examiner	Art Unit	
	Andy S. Rao	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 April 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *3/16/07*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Applicant's arguments with respect to claims 1-21 as filed on 4/26/07 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meeker in view of Kato et al., (hereinafter referred to as "Kato").

Meeker discloses method for encoding a moving video signal comprising a plurality of images, each image having a plurality of pixels (Meeker: column 6, lines 1-20), said method comprising steps of: generating a sum signal and a difference signal of images for every two frames (Meeker: figure 8, elements 118 and 130); deciding an encoding bit rate for the sum signal and the difference signal based on the sum signal and the difference signal (Meeker: column 18, lines 45-55); and encoding the sum signal and the difference signal respectively based on the encoding bit rate (Meeker: column 20, lines 15-40), and generating an output signal (Meeker: column 18, lines 35-50), as in claim. However, Meeker fails to disclose generating an output signal on the basis of a proportion of a data quantity generated by encoding the sum signal and the a data quantity encoding the difference signal. Kato discloses a method for encoding

(Kato: column 4, lines 32-50) including generating an output signal (Kato: column 14, lines 30-45) on the basis of a proportion of a data quantity (Kato: column 11, lines 5-20) generated by encoding the sum signal (Kato: figure 13, element 120) and the a data quantity encoding the difference signal. (Kato: figure 13, element 113) in order to control picture quality in compressed video (Kato: column 6, lines 1-10). Accordingly, given this teaching, it would have been obvious for one of ordinary skill in the art to incorporate the Kato output generating step into the Meeker encoding method in order control picture quality in the compressed video the composite method. The Meeker method, now incorporating the Kato output generating step, has all of the features of claim 1.

Regarding claim 2, the Meeker method, now incorporating the Kato output generating step, has discloses wherein the step of deciding generates a control signal to be used for the encoding, the control signal representing a proportion of the encoding bit rate for the sum signal and the difference signal (Meeker: column 21, lines 15-25), as in the claim.

Regarding claim 3, the Meeker method, now incorporating the Kato output generating step, has wherein the step of deciding decides the encoding bit rate on the basis of a variation in signal level of each pixel of the sum signal and a variation in signal level of each pixel of the difference signal (Meeker: column 21, lines 35-42), as in the claim.

Regarding claim 4, the Meeker method, now incorporating the Kato output generating step, has wherein said step of encoding performs the encoding on any one of the sum signal and the different signal and then performs the encoding on the other signal (Meeker: column 20, lines 20-35), as in the claim.

Regarding claim 5, the Meeker method, now incorporating the Kato output generating step, has wherein the step of deciding decides the encoding bit rate on the basis of a proportion of a data quantity generated by encoding the sum signal and a data quantity generated by encoding the different signal (Meeker: column 20, lines 10-20), as in the claim.

Regarding claim 6, the Meeker method, now incorporating the Kato output generating step, has discloses a step of adjusting a level of any one of the sum signal and the difference signal (Meeker: column 18, lines 55-65), as in the claim.

Meeker discloses an apparatus for encoding a moving video signal comprising a plurality of images, each image having a plurality of pixels (Meeker: figure 8), said apparatus comprising: a first generating element for generating a sum signal and a difference signal of images for every two frames (Meeker: figure 8, elements 118 and 130); a deciding element for deciding an encoding bit rate for the sum signal and the difference signal based on the sum signal and the difference signal (Meeker: column 18, lines 45-55); and an encoding element for encoding the sum signal and the difference signal respectively based on the encoding bit rate (Meeker: column 20, lines 15-40), as in claim 7. However, Meeker fails to disclose a second generating element for generating an output signal on the basis of a proportion of a data quantity generated by encoding the sum signal and the a data quantity encoding the difference signal. Kato discloses a an apparatus for encoding (Kato: column 4, lines 32-50) including an element for generating an output signal (Kato: column 14, lines 30-45) on the basis of a proportion of a data quantity (Kato: column 11, lines 5-20) generated by encoding the sum signal (Kato: figure 13, element 120) and the a data quantity encoding the difference signal. (Kato: figure 13, element 113) in order to control picture quality in compressed video (Kato: column 6, lines 1-10). Accordingly,

given this teaching, it would have been obvious for one of ordinary skill in the art to incorporate the Kato output generating element into the Meeker encoding apparatus as a second generating element in order control picture quality in the compressed video. The Meeker apparatus, now incorporating the Kato element, has all of the features of claim 7.

Regarding claim 8, the Meeker apparatus, now incorporating the Kato element, discloses wherein the deciding element generates a control signal to be used for the encoding element, the control signal representing a proportion of the encoding bit rate for the sum signal and the difference signal (Meeker: column 21, lines 15-25), as in the claim.

Regarding claim 9, the Meeker apparatus, now incorporating the Kato element, has wherein the deciding element decides the encoding bit rate on the basis of a variation in signal level of each pixel of the sum signal and a variation in signal level of each pixel of the difference signal (Meeker: column 21, lines 35-42), as in the claim.

Regarding claim 10, Meeker discloses wherein said encoding element performs the encoding on any one of the sum signal and the difference signal and then performs the encoding on the other signal (Meeker: column 20, lines 20-35), as in the claim.

Regarding claim 11, the Meeker apparatus, now incorporating the Kato element, has wherein the deciding element decides uses a signal level variation to judge whether the signal contains more information (Kato: column 9, lines 30-50), as in the claim.

Regarding claim 12, the Meeker apparatus, now incorporating the Kato element, has further comprising an adjustment element for adjusting a level of any one of the sum signal and the different signal (Meeker: column 18, lines 55-65), as in the claim .

Meeker discloses a computer program operable by a computer, the program comprising instruction data to be carried out by the computer (Meeker: column 20, lines 1-5), the instruction data comprising: data to instruct generating a sum signal and a difference signal of images for every two frames (Meeker: figure 8, elements 118 and 130); data to instruct deciding an encoding bit rate for the sum signal and the difference signal based on the sum signal and the difference signal (Meeker: column 18, lines 45-55); and data to instruct encoding the sum signal and the difference signal respectively based on the encoding bit rate (Meeker: column 20, lines 15-40), as in claim 13. However, Meeker fails to disclose data to instruct generating an output signal on the basis of a proportion of a data quantity generated by encoding the sum signal and the a data quantity encoding the difference signal. Kato discloses a method for encoding (Kato: column 4, lines 32-50) including generating an output signal (Kato: column 14, lines 30-45) on the basis of a proportion of a data quantity (Kato: column 11, lines 5-20) generated by encoding the sum signal (Kato: figure 13, element 120) and the a data quantity encoding the difference signal. (Kato: figure 13, element 113) in order to control picture quality in compressed video (Kato: column 6, lines 1-10). Accordingly, given this teaching, it would have been obvious for one of ordinary skill in the art to incorporate the Kato output generating step into the Meeker computer program implementing Meeker's encoding method in order control picture quality in the compressed video. The Meeker computer program, now incorporating the Kato output generating step as program code, has all of the features of claim 13.

Regarding claim 14, the Meeker computer program, now incorporating the Kato output generating step as program code, discloses wherein the data to instruct deciding includes generating a control signal to be used for the encoding, the control signal representing a

proportion of the encoding bit rate for the sum signal and the difference signal (Meeker: column 21, lines 15-25), as in the claim.

Regarding claim 15, the Meeker computer program, now incorporating the Kato output generating step as program code, wherein the data to instruct deciding includes deciding the encoding bit rate on the basis of a variation in signal level of each pixel of the sum signal and a variation in signal level of each pixel of the difference signal (Meeker: column 21, lines 35-42), as in the claim.

Regarding claim 16, the Meeker computer program, now incorporating the Kato output generating step as program code, has wherein said data to instruct the encoding instructs encoding any one of the sum signal and the differencet signal and then instructs encoding the other signal (Kato: column 9, lines 30-50), as in the claim.

Regarding claim 17, the Meeker computer program, now incorporating the Kato output generating step as program code, wherein the data to instruct deciding includes deciding the encoding bit rate on the basis of a proportion of a data quantity generated by encoding the sum signal and a data quantity generated by encoding the difference signal (Meeker: column 20, lines 10-20), as in the claim.

Regarding claim 18, the Meeker computer program, now incorporating the Kato output generating step as program code, discloses using data to adjust a level of any one of the sum signal and the difference signal (Meeker: column 18, lines 55-65), as in the claim.

Meeker discloses a method for decoding (Meeker: column 7, lines 20-55) encoded data by encoding a moving video signal comprising a plurality of images (Meeker: column 6, lines 1-20), each image having a plurality of pixels, the encoded data comprising an encoded sum signal

generated by encoding a sum signal of images and an encoded different signal generated by encoding a different signal of images (Meeker: figure 8, element 118 and 130), the sum signal and the difference signal of images being generated for every two frames (Meeker: column 9, lines 30-40), the method comprising steps of: decoding the encoded data to generate a decoded sum signal and a decoded difference signal (Meeker: figure 8, element 144 and 138); generating two-frame images using the decoded sum signal and the decoded difference signal (Meeker: figure 8, element 146); and outputting the two-frame images in a prescribed order to generate a decoded moving video signal (Meeker: figure 8, element 152), as in claim 19. However, Meeker fails to disclose generating an output signal on the basis of a proportion of a data quantity generated by encoding the sum signal and the a data quantity encoding the difference signal. Kato discloses a method for encoding (Kato: column 4, lines 32-50) including generating an output signal (Kato: column 14, lines 30-45) on the basis of a proportion of a data quantity (Kato: column 11, lines 5-20) generated by encoding the sum signal (Kato: figure 13, element 120) and the a data quantity encoding the difference signal. (Kato: figure 13, element 113) in order to control picture quality in compressed video (Kato: column 6, lines 1-10). Accordingly, given this teaching, it would have been obvious for one of ordinary skill in the art to incorporate the Kato output generating step into the Meeker encoding method in order control picture quality in the compressed video the composite method. The Meeker method, now incorporating the Kato output generating step, has all of the features of claim 19.

Meeker discloses apparatus for decoding (Meeker: figure 8) encoded data by encoding a moving video signal comprising a plurality of images (Meeker: column 6, lines 1-20), each image having a plurality of pixels, the encoded data comprising an encoded sum signal generated

by encoding a sum signal of images and an encoded different signal generated by encoding a different signal of images (Meeker: figure 8, element 118 and 130), the sum signal and difference signal of images being generated for every two frames (Meeker: column 9, lines 30-40), the apparatus comprising: an element for decoding the encoded data to generate a decoded sum signal and a decoded different signal (Meeker: figure 8, elements 144 and 138); an element for generating two-frame images using the decoded sum signal and the decoded different signal (Meeker: figure 8, element 146); and an element for outputting the two-frame images in a prescribed order to generate a decoded moving video signal (Meeker: figure 8, element 152), as in claim 20. However, Meeker fails to disclose a generating element for generating an output signal on the basis of a proportion of a data quantity generated by encoding the sum signal and the a data quantity encoding the difference signal. Kato discloses a an apparatus for encoding (Kato: column 4, lines 32-50) including an element for generating an output signal (Kato: column 14, lines 30-45) on the basis of a proportion of a data quantity (Kato: column 11, lines 5-20) generated by encoding the sum signal (Kato: figure 13, element 120) and the a data quantity encoding the difference signal. (Kato: figure 13, element 113) in order to control picture quality in compressed video (Kato: column 6, lines 1-10). Accordingly, given this teaching, it would have been obvious for one of ordinary skill in the art to incorporate the Kato output generating element into the Meeker encoding apparatus as a generating element in order control picture quality in the compressed video. The Meeker apparatus, now incorporating the Kato element, has all of the features of claim 20

Meeker discloses a computer program operable by a computer (Meeker: column 20, lines 1-5), the program comprising instruction data to be carried out by the computer, the instruction

data including decoding (Meeker: column 7, lines 20-50) encoded data by encoding a moving video signal comprising a plurality of images (Meeker: column 6, lines 1-20), each image having a plurality of pixels, the encoded data comprising an encoded sum signal generated by encoding a sum signal of images and an encoded different data generated by encoding a different signal of images (Meeker: column 9, lines 30-40), the sum signal and difference signal of images being generated for every two frames, the instruction data further comprising: data to instruct decoding the encoded data to generate a decoded sum signal and a decoded difference signal (Meeker: figure 8, elements 144 and 138); data to instruct generating two-frame images using the decoded sum signal and the decoded difference signal (Meeker: figure 8, element 146); and data to instruct outputting the two-frame images in a prescribed order to generate a decoded moving video signal (Meeker: figure 8, element 152), as in claim 21. However, Meeker fails to disclose data to instruct generating an output signal on the basis of a proportion of a data quantity generated by encoding the sum signal and the a data quantity encoding the difference signal. Kato discloses a method for encoding (Kato: column 4, lines 32-50) including generating an output signal (Kato: column 14, lines 30-45) on the basis of a proportion of a data quantity (Kato: column 11, lines 5-20) generated by encoding the sum signal (Kato: figure 13, element 120) and the a data quantity encoding the difference signal. (Kato: figure 13, element 113) in order to control picture quality in compressed video (Kato: column 6, lines 1-10). Accordingly, given this teaching, it would have been obvious for one of ordinary skill in the art to incorporate the Kato output generating step into the Meeker computer program implementing Meeker's encoding method in order control picture quality in the compressed video. The Meeker computer

program, now incorporating the Kato output generating step as program code, has all of the features of claim 21.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

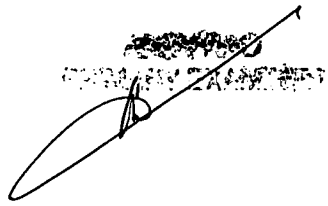
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andy S. Rao whose telephone number is (571)-272-7337. The examiner can normally be reached on Monday-Friday 8 hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on (571)-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Andy S. Rao
Primary Examiner
Art Unit 2621



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July 8, 2007